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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.             | CONFIRMATION NO.            |
|---|-------------|----------------------|---------------------------------|-----------------------------|
| 10/649,299  | 08/27/2003  | Jeffrey W. Corbett   | PC27695A                        | 5386                        |
| 28523   | 7590        | 11/03/2008           |                                 |                             |
| PFIZER INC.<br>PATENT DEPARTMENT, MS8260-1611<br>EASTERN POINT ROAD<br>GROTON, CT 06340 |             |                      | EXAMINER<br>WARD, PAUL V        |                             |
|   |             |                      | ART UNIT<br>1624                | PAPER NUMBER                |
|   |             |                      | NOTIFICATION DATE<br>11/03/2008 | DELIVERY MODE<br>ELECTRONIC |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

~IPGSGro@pfizer.com

|                              |                                      |                                       |  |
|------------------------------|--------------------------------------|---------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/649,299 | <b>Applicant(s)</b><br>CORBETT ET AL. |  |
|                              | <b>Examiner</b><br>PAUL V. WARD      | <b>Art Unit</b><br>1624               |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 5-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-2 and 5-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____.                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____.  | 6) <input type="checkbox"/> Other: ____.                          |

**DETAILED ACTION**

***Response to Arguments Regarding***

***Claim Rejections - 35 USC § 102 & 112***

1. The rejections, of claims 1, 5-7 and 9-15, have been overcome by Applicant's amendment in the reply filed July 10, 2008.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-2 and 5-15 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contain subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicants have amended claim 1 by inserting the phrase "provided that when V is -NH; Ar is phenyl, substituted with methyl or nitro; R<sub>1</sub> is 2-(N,N-dimethylaminoethyl); R<sub>2</sub> is C(O)NH<sub>2</sub> then X is not CR<sub>3</sub>R<sub>3</sub>R<sub>5</sub>". However, the said phrase is not supported by the original disclosure and thus, is considered as a new matter. Cancellation of the new matter is required.

3. Claims 2 and 15-15 are rejected because they are dependent upon a rejected base claim.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

1. Claims 1-2 and 5-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murakama et al. (WO 00/76980).

Claim 1 is drawn to a compound with a 1,4-pyrazine core in which the moieties on the core are substituted by variables represented by X, V and R<sub>1</sub>-R<sub>2</sub>, and Ar which are represented by alkyl, alkoxy, alkylthio, alkylamino and alkenyl, heteroaryl, heterocycloalkyl, aryl substituents of various carbon lengths which may be further substituted.

**DETERMINING THE SCOPE AND CONTENT OF THE PRIOR ART**

Murakama teaches a compound with a 1,4-pyrazine core which corresponds in structure with the instantly claimed compound of formula I. The 1,4-pyrazine moieties of said prior art core are substituted by variables represented by various R<sub>groups</sub> which are independently represented by alkyl, alkoxy, alkylthio, alkylamino and alkenyl, heteroaryl, heterocycloalkyl, aryl substituents. The reference further discloses the compounds are useful in CNS disorders.

#### **ASCERTAINING THE DIFFERENCES BETWEEN THE PRIOR ART AND THE CLAIMS AT ISSUE**

The instant claims differ from the reference by reciting different carbon ranges for the overlapping moieties attached to the core of the compound through the 1,4-pyrazine component and the prior art compound does not require AR substituted with ethyl or methyl attached to the core but provides sufficient support for such a substitution on the core.

#### **CONSIDERING OBJECTIVE EVIDENCE PRESENT REGARDING OBVIOUSNESS**

The prior art clearly discloses the class of compounds instantly claimed, which are 1,4-pyrazine compounds, are recognized in the art by their correlative core and recognized suitability for use in CNS disorders containing said 1,4-pyrazine compounds. These compounds are known to be included in CNS disorders. The variable substitution to the core of the prior art's compound and the compound instantly claimed overlap so substantially that it would require little more than routine skill in the art to select moieties which would allow the skilled artisan to arrive at applicant's instantly claimed species.

#### **RESOLVING THE LEVEL OF SKILL IN THE ART**

It would have been obvious to one having ordinary skill in this art at the time the invention was made to substitute a 1,4-pyrazine core with at least one the groups set forth in the prior art as applicant has done with the above cited reference before them. The prior art patent provides sufficient motivation to include the 1,4-pyrazine compounds of the prior art and those rendered obvious in the instant application.

Thus, Applicant's claims are obvious, and therefore, rejected under 35 U.S.C. 103.

### ***Conclusion***

Claims 1-2 and 5-15 are pending. Claims 1-2 and 5-15 are rejected. No claims are allowed.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Art Unit: 1624

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PAUL V WARD whose telephone number is 571-272-2909. The examiner can normally be reached on M-F 8 am to 4 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James O Wilson can be reached on 571-272-0661. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**/PAUL V WARD/  
Examiner, Art Unit 1624**

**/James O. Wilson/  
Supervisory Patent Examiner, Art Unit 1624**